

CLAIMS

1. An air conditioner for vehicle use comprising:
 - a blower (21) for blowing air into a vehicle compartment;
 - 5 a cooler (2) for cooling the air which has been blown by the blower (21);
 - a heater (3) for heating the air which has been blown by the blower (21);
 - 10 an air conditioning casing (4) for accommodating the cooler (2) and heater (3), having a heater bypass passage (5) to make a detour of the heater (3) so as to let the air flow to the downstream side;
 - a cold wind side air mixing door (6) for controlling a state of communication of the heater bypass passage (5), the cold wind side air mixing door (6) being provided in the air conditioning casing (4); and
 - 15 a hot wind side air mixing door (7) for controlling a quantity of the wind passing through the heater (3), the hot wind side air mixing door (7) being provided in the air conditioning casing (4), wherein
 - the cooler (2) is arranged on the upstream side of the air flow of the heater (3) and the entrance portion of the heater bypass passage (5),
 - 20 the air conditioner for vehicle use further comprising:
 - 25 a communicating port (15) for communicating the inside with the outside of the air conditioning casing (4), the communicating port (15) being arranged in the air conditioning casing (4) on the upstream side of the air flow of the heater (3) and the entrance portion of the heater bypass passage (5); and
 - 30 an air blowing control means (S3, S4, S13, S14, S23, S24, S33, S34) for conducting an air blowing mode in which the blower (21) is operated under the condition that both the air mixing doors (6, 7) are closed.
2. An air conditioner for vehicle use comprising:

a blower (21) for blowing air into a vehicle compartment;

a cooler (2) for cooling the air which has been blown by the blower (21);

5 a heater (3) for heating the air which has been blown by the blower (21);

an air conditioning casing (4) for accommodating the cooler (2) and heater (3); and

10 blowout mode doors (9 to 11) arranged in air passages connecting the air conditioning casing (4) with air blowout ports which are open in the vehicle compartment, the blowout mode doors (9 to 11) controlling a state of communication of the air passages;

15 a communicating port (15) for communicating the inside with the outside of the air conditioning casing (4), the communicating port (15) being arranged in the air conditioning casing (4) on the upstream side of the air flow of the air blowout mode doors (9 to 11); and

20 an air blowing control means (S43, S44) for conducting an air blowing mode in which the blower (21) is operated under the condition that the blowout mode doors (9 to 11) are closed.

3. An air conditioner for vehicle use according to
25 claim 1, further comprising a means for judging whether or not a vehicle is stopped (S1, S21, S31, S41), wherein the air blowing control means (S3, S4, S13, S14, S23, S24, S33, S34, S43, S44) executes the air blowing mode when the means for judging whether or not 30 the vehicle is stopped (S1, S21, S31, S41) judges that the vehicle is stopped.

4. An air conditioner for vehicle use according to claim 3, further comprising a means (S2, S12, S42) for executing the air blowing mode when a predetermined period of time has passed after the vehicle was stopped.
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5. An air conditioner for vehicle use according to claim 4, further comprising an air blowing stop means

(S5, S16, S25, S35, S45) for stopping the air blowing mode when a predetermined period of time has passed after the air blowing control means (S3, S4, S13, S14, S23, S24, S33, S34, S43, S44) executed the air blowing mode.

5 6. An air conditioner for vehicle use according to claim 4, further comprising an air blowing stop means (S55, S56) for stopping the air blowing mode when a quantity of water attached to a surface of the cooler (2) is decreased to a value not more than a predetermined 10 value after the air blowing control means (S3, S4, S13, S14, S23, S24, S33, S34, S43, S44) executed the air blowing mode.

15 7. An air conditioner for vehicle use according to claim 1, further comprising a remote executing means (23) for executing the air blowing mode when a signal is received from a remote operating means.

20 8. An air conditioner for vehicle use according to claim 3, further comprising an automatic ventilation means for automatically ventilating a vehicle compartment when a stoppage of the vehicle is judged by a means (S1, S21, S31, S41) for judging whether or not the vehicle is stopped.

25 9. An air conditioner for vehicle use according to claim 1, further comprising a means (S34) for generating a refrigerating capacity in the cooler (2) while the air blowing mode is being executed.

30 10. An air conditioner for vehicle use according to claim 1, further comprising a means (S73 to S75, S83 to S85) for executing the air blowing mode when a quantity of water attached to the surface of the cooler (2) is decreased to a value not more than a predetermined value.